



SEQUENCE LISTING

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TECH CENTER 1600/2930

RECEIVED

<120> Efendic, Suad
 USE OF GLP-1 OR ANALOGS IN TREATMENT OF STROKE
 <130> X-11158
 <140> US 09/400,802
 <141> 1999-09-22
 <150> US 60/101,719
 <151> 1998-09-24
 <160> 35
 <170> PatentIn version 3.1
 <210> 1
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 1
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 2
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 2
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys
 20 25

<210> 3
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 3
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
 20 25

<210> 4
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 4

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 5
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 5

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 6
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<220>
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<400> 6

His Ala Gln Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 7
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 <213> Artificial Sequence

<220>
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<220>
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 <222> (3)..(3)
 <223> Xaa at position 3 is D-Gln.

<400> 7

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 8
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 8

His Ala Glu Gly Thr Phe Thr Ser Asp Thr Ser Lys Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 9
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 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 9

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 10
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,

D-Arg and Met;

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
 D-Arg and Met.

<400> 10
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa
 20 25

<210> 11
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
 D-Arg and Met;

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
 D-Arg and Met.

<400> 11
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly
 20 25

<210> 12
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,

D-Arg and Met;

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
 D-Arg and Met;

<220>
 <221> MISC_FEATURE
 <222> (30)..(30)
 <223> Xaa at position 30 is Lys, D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
 Met and D-Arg.

<400> 12

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Gly	Xaa	Gly
			20					25					30	

<210> 13
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 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa at position 10 is Tyr or Val;

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa at position 12 is Lys or Ser;

<220>
 <221> MISC_FEATURE
 <222> (15)..(15)
 <223> Xaa at position 15 is Asp or Glu;

<220>
 <221> MISC_FEATURE
 <222> (16)..(16)
 <223> Xaa at position 16 is Ser or Gly;

<220>
 <221> MISC_FEATURE
 <222> (17)..(17)
 <223> Xaa at position 17 is Arg or Gln;

<220>
 <221> MISC_FEATURE
 <222> (18)..(18)
 <223> Xaa at position 18 is Arg or Ala;

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Gln or Lys.

<400> 13
 His Ala Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Xaa Xaa
 1 5 10 15
 Xaa Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 14
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 14
 Tyr Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 15
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa at position 1 is N-acetyl-His.

<400> 15
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 16
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa at position 1 is N-isopropyl-His.

<400> 16

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 17
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is D-Ala.

<400> 17

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 18
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is D-Glu.

<400> 18

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 19
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 19

His Ala Asp Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 20
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is D-Asp.

<400> 20

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 21
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)
 <223> Xaa at position 4 is D-Phe.

<400> 21

His Ala Glu Xaa Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 22

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 22

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Ser
 1 5 10 15

Arg Arg Ala Gln Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 23

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 23

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 24

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa at position 1 is His, D-histidine, desamino-histidine,
 2-amino-histidine, beta-hydroxy-histidine, homohistidine,
 alpha-fluormethyl-histidine, and alpha-methyl-histidine;

<220>

<221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Ala, Gly, Val, Thr, Ile, and
 alpha-methyl-Ala;

<220>
 <221> MISC_FEATURE
 <222> (15)..(15)
 <223> Xaa at position 15 is Glu, Gln, Ala, Thr, Ser, and Gly;

<220>
 <221> MISC_FEATURE
 <222> (21)..(21)
 <223> Xaa at position 21 is Glu, Gln, Ala, Thr, Ser, and Gly;

<220>
 <221> MISC_FEATURE
 <222> (31)..(31)
 <223> Xaa at position 31 is Gly-OH or is absent.

<400> 24
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly
 1 5 10 15

Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
 20 25 30

<210> 25
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 25
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 26
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is acetyl-Lys.

<400> 26

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 27

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 27

His Ala Thr Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 28

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa at position 3 is D-Thr.

<400> 28

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 29

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 29

His Ala Asn Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 30
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is D-Asn.

<400> 30

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 31
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 31

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Arg Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 32
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<400> 32

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Arg Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 33
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is Lys and Lys-Gly.

<400> 33

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
 20 25

<210> 34
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is Lys, Lys-Gly, Lys-Gly-Arg.

<400> 34

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
 20 25

<210> 35
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa at position 1 is 4-imidazopropionyl, 4-imidazoacetyl,

4-imidazo-alpha, or alpha dimethyl-acetyl;

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Lys or Arg;

<220>
 <221> MISC_FEATURE
 <222> (31)..(31)
 <223> Xaa at position 31 is Gly or absent.

<400> 35

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
 20 25 30